

REMARKS

This is responsive to the Office Action mailed May 4, 2007 and, since the Office Action is final, is accompanied by a Request for Continued Examination (RCE) together with the required fee.

It appears that there are three main points of disagreement, each being addressed below.

1. Shoulder Portions

Claim 9 has been amended to address the Examiner's concern that "the claim does not positively recite the shoulder portions of at least two shoulder bolts in combination with the claimed apparatus." The shoulder bolts are now positively recited in combination with the claimed apparatus, where it is inherent (by definition) that shoulder bolts have "shoulder portions."

2. Gap

The Examiner points out that Applicant's previous argument concerning claim 1 was based on the non-existence, in the prior art, of a gap that is greater than the thickness of the knife. This remains Applicant's position; however, the argument assumed consideration of the entire phrase: "a gap between a first portion of said upper clamping member that is cantilevered from said base" Particularly, it was assumed to be understood that the gap would need to be maintained by the upper clamping member in the absence of any support being provided by the knife, i.e., that a portion of the upper clamping member that receives the corresponding side of the knife is cantilevered. It does not appear that the Examiner has the same understanding, and so the

following is a discussion of the meaning of the term “cantilevered,” and a showing of why the prior art as represented by Bielagus, U.S. Patent No. 5,937,923, is qualitatively different from what is claimed. Exhibits 1 - 4 referred to below are attached hereto.

It should first be noted that the term “gap” was introduced into claim 1 as a result of a telephone conference with the Examiner in which the Examiner explained that, without a positive recitation of the space in which the knife is disposed, the claim lacked “specificity.” The term was added merely to address that concern, and was not intended to introduce a patentable distinction over the prior art. The term “cantilevered,” on the other hand, was present in claim 1 as originally filed, and was included because it was believed to make a difference in support of patentability.

Exhibit 1 is a reproduction of Figure 6 of the present application, and Exhibit 2 is a reproduction of Figure 3 of Bielagus, for purposes of comparison, Bielagus being representative, for purposes of this rejection, of all of the prior art of record.

Exhibits 3 and 4 are sketches illustrating the essence of the support means used for supporting the upper clamping member in Exhibits 1 and 2 respectively.

Cantilever Support (Exhibit 3)

Exhibit 3 illustrates a cantilevered support consistent with claim 1. The upper clamping member 38a is bolted to the base 40 with a bolt 45a.

There is only a single support “A” that supports the clamping member 38a, and the clamping member is therefore supported like a diving board: The cantilevered support “A” resists bending of the clamping member 38a that occurs as a result of applying CLAMPING FORCE at the location indicated, producing BENDING of the upper clamping member in the direction

shown. The CLAMPING FORCE in the preferred embodiment is applied by the bolt 45c shown in Figure 6 (Exhibit 1), but however it is applied, it is not applied by the bolt 45a of the cantilevered support "A."

Significant bending of the upper clamping member 38a will need to occur, i.e., a significant CLAMPING FORCE will be required, to close a gap "G" (here between the upper clamping member and the base 40) by forcing (against the resistance provided by the support "A" and the elasticity of the clamping member) the point P1 of the clamping member 38a to come into contact with the point P2 of the base 40.

Further, it should be appreciated that if the CLAMPING FORCE is suddenly removed, the clamping member 38a will spring back into its original orientation, because it was elastically deflected as a result of the application of the CLAMPING FORCE.

Still further, it should be noted that the clamping member 38a is rigidly bolted to the base 40 by the bolt 45a without any clamping force being provided for clamping a knife. As noted above, the clamping force is provided by the bolt 45c. So, separate bolts are provided for mounting the upper clamping member to the base and clamping the knife and each function is provided independently of the other.

Prior Art (Exhibit 4)

The above described physical characteristics of the cantilever support contrast qualitatively and markedly with the characteristics of the support provided in the Bielagus reference. Referring to Exhibit 4, the "wedge clamp 76" is bolted to the "drum segment 34" by use of a bolt 78. The clamp 76 is supported at two supports "A" and "B," with the bolt 78 being disposed therebetween. So the first readily apparent, distinct difference between the prior art and the claimed cantilevered

clamp is that the prior art requires two spaced apart supports to support the clamp, while the cantilever support only requires one.

The bolt 78, unlike the bolt 45a of the cantilever support, both mounts the clamp 76 to the drum segment 34, and clamps the knife, as the bolt is tightened. This is another distinct difference between the prior art and the claimed invention. In the claimed invention, the bolt 45c (see Figure 6 of the present application) applies clamping force to the knife, while a different bolt 45a mounts the clamp to the base. Therefore, the clamping force can be applied or removed independent of the mounting of the clamp.

Yet another distinct difference between the prior art and the claimed invention is that neither the support "A" or "B" in the prior art can resist bending, so that if the support at "B" were somehow suddenly removed, the clamp 76 would rotate about the support "A," it would not stay in place as it would if support "A" were a cantilever support.

These differences all flow from the requirement, positively recited in claim 1, that the upper clamping member is *cantilevered* from the base. For example, because the upper clamping member is cantilevered from the base, (a) only one support is required to mount the upper clamping member to the base, not two supports as in the mounting arrangement disclosed in Beilagus; (b) a force, in proportion to the upper clamping member's elastic resistance, is required to close a gap between the upper clamping member and the base, or between the upper clamping member and a knife disposed between the upper clamping member and the base; and (c) this force may be applied to the knife independently of the manner by which the upper clamping member is secured to the base. So, the single word "cantilevered" makes several important distinctions over the prior art.